DOCUMENT RESUME

ED 233 571 FL 013 868

AUTHOR Goldman, Susan R.; Reyes, Maria
TITLE Use of Prior Knowledge in Understanding Fables in First and Second Languages.
PUB DATE Apr 83
NOTE 20p.; Paper presented at the Annual Meeting of the American Educational Research Association (Montreal, Quebec, April 11-14, 1983).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Bilingual Education; *Bilingualism; Elementary Education; English; *Fables; Fiction; *Language of Instruction; Language Research; *Monolingualism; *Reading Comprehension; Recall (Psychology); *Second Language Learning; Spanish
IDENTIFIERS *Aesop Fables

ABSTRACT

Children's understanding of fables and the degree to which knowledge used by the child to understand first language input is also used to understand second language input were studied. In addition, the way that such a relationship changes as the second language is acquired was examined. Students in Spanish-English bilingual programs in kindergarten through fourth grade and other children in monolingual English classrooms were presented Aesop's fables and asked to retell the fables and to answer inferential comprehension questions. For all students, questions and recall performance were positively correlated, with the questions demonstrating higher performance than the recalls. For the students in the bilingual programs, recall and question performance were comparable in both Spanish and English, once basic auditory and orthographic parsing skills were mastered in English. Performance in first languages (Spanish for the bilinguals; English for the monolinguals) was comparable at each grade level. The findings indicate that knowledge used to guide story comprehension in a first language is also used to guide story comprehension in the second language. This conclusion reinforces the instructional practice of using the primary language as the language of instruction while English is introduced as a second language. (Author/SW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED233571

Use of Prior Knowledge in Understanding Fables in First and Second Languages

Susan R. Goldman and María Reyes

University of California, Santa Barbara

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Susan Goldman

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

FL013 868

Paper presented at the annual Meeting of the American Educational Research Association, Montreal, Canada, April, 1983. The research project was supported by a grant from the National Institute of Education and the Part C Research Agenda.

Abstract

Children acquire knowledge of the form and content of narratives largely through oral language experiences in their first language. This prior knowledge is used subsequently when children try to understand other stories that they hear or read. This project examined children's understanding of fables, the degree to which knowledge used by the child to understand first language input is also used to understand second language input and how such a relationship changed as the second language was acquired. Students in Spanish-English bilingual programs (K-4) and others in monolingual English classrooms (K-4) were presented with Aesop's fables and asked to retell the fables and answer inferential comprehension questions. For all students, question and recall performance were positively correlated, with the questions demonstrating higher performance than the recalls. For the students in the bilingual programs, recall and question performance were comparable in both Spanish and English, once basic auditory and orthographic parsing skills were mastered in English. Performance in first languages (Spanish for the bilinguals; English for the monolinguals) was comparable at each grade level. The findings indicate that knowledge used to guide story comprehension in a first language is also used to guide story comprehension in the second language. This conclusion reinforces the instructional practice of using the primary language as the language of instruction while English is introduced as a second language.

Use of Prior Knowledge in Understanding
Fables in First and Second Languages

Susan R. Goldman and Mariá Reyes
University of California, Santa Barbara

A large amount of research points to the importance of the narrative story in the lives of children. The narrative form originated in the oral tradition, prior to the invention of writing systems. Narratives were a primary mechanism for preserving and transmitting the history of a culture. A relatively fixed structure for the narrative developed, probably to make such tales easier to remember. As with the evolution of man in general, narratives have an early place of importance in the development of a child. Along with conversation and dialogue, narrative stories are among the first types of organized language to which the child is exposed.

Children's experiences with narratives lead to the acquisition of knowledge of the typical form of these stories and to familiarity with the sorts of situations, events and themes comprising the content (e.g., Mandler & Johnson, 1977; Poulson, Kintsch, Kintsch & Premack, 1979). These outcomes are important components in the development of literacy and in beginning reading instruction. Often, the first written down language children see is dialogue and this is quickly followed by short narrative stories. The process of comprehending these stories, in part, depends on using previously acquired knowledge to encode the message and to later retrieve it. Knowledge of narrative content and form may be particularly important in children's ability to produce organized language, whether in oral or written form (Stein & Trabasso, 1982).

For the monolingual English speaker, knowledge acquired through oral language experiences prior to school entrance has been in English and there is no issue of the applicability of these experiences to written down English. Barring some type of cognitive and/or language disability, the child uses this knowledge base in the classroom. For the native Spanish speaker, knowledge acquired through oral language experiences prior to school entrance has generally been in Spanish. A significant amount of research has addressed the question of whether bilinguals have language-specific knowledge systems or a common system (e.g., Caramazza & Brones, 1979, 1980; Kintsch, 1970; Lopez & Young, 1974). While the evidence appears to favor the common system interpretation, (Dornic, 1979; Macnamara, 1967; McCormack, 1977), we feel this is a problematic empirical issue. Rather, the important issues concern the circumstances under which previously acquired knowledge is used in dealing with new language input, whether Spanish or English.

We examined children's understanding of narratives, the degree to which knowledge available in the child's first language is used in understanding second language input, and the relationship between knowledge utilization and the acquisition of age-appropriate literacy skills. We used a particular type of narrative text to examine this issue: Aesop's fables.

This type of narrative has at least two characteristics that make it a good starting place. Aesop's fables are part of the literary tradition of both Spanish and English cultures (Bravo-Villasante, 1973; Childcraft, 1973) and are therefore familiar to each culture. In addition, educational researchers have used narratives in the assessment of language proficiency in bilingual and monolingual children (e.g., Cohen, 1975; John, Horner & Berney, 1970; Lambert & Macnamara, 1969). In fact, some of the most widely used language assessment instruments use story recall or story

telling tasks (e.g., Language Assessment Scales, 1977; Bilingual Inventory of Natural Language, 1974). However, the scoring and interpretation of performance on these instruments does not reflect current empirical work in this area. The results and conclusions regarding language proficiency may be confounded with differences in structural characteristics of the presented stories and are difficult to interpret, given the lack of basic, descriptive developmental data on story recall by non-native English speakers in first and second languages.

A sample of the stories we used is shown on the first page of the handout. In this structure, there are three behavioral episodes, each consisting of a beginning, reaction, development and outcome. The beginning sets up the problem of the episode; the reaction typically relates goals and emotional responses to the problem; the development relates attempts to deal with the problem; and the outcome gives information about the result of the attempts. The fable shown in Table 1 involves three characters; two of these, the ant and the dove, interact in all 3 episodes in a cooperative way. We also used a second structure, again consisting of three episodes and three characters. However, in the second structure, the first two episodes involve goal-conflict and its resolution, Unlike the first structure, there is a more explicit obligation to help in the third episode.

We used both of these structures in a series of comprehension studies, involving students in Kindergarten through fifth grade. Different and age-appropriate literacy skills were tested in the various experiments. However, this talk is limited to the work conducted with two of these groups of students: Students in Kindergarten through fourth grade who have been in bilingual classrooms since entering school and Kindergarten through fourth grade students who are native English speakers and have

been in traditional monolingual English classrooms since school entrance. The left hand column of Table 2 describes the size of the sample at each grade. In each grade, the bilingual program participants had begun reading in Spanish and received ESL instruction. The Kindergarten, first and second graders had had no exposure to English reading. The third graders had had approximately one month of readiness for English reading. All students in these grades were reading at level in Spanish. In the fourth grade, the students had been reading in English for approximately one year and were reading at level in Spanish. The monolingual groups at each grade level were reading at level in English and were attending the same school as the bilingual program participants. All testing was conducted during the months of March and April of the school year.

The fourth graders read the fables whereas Kindergarten through third graders listened to them. The bilingual program participants were presented with four different fables: one of each structure type in Spanish and one in English. The monolingual students were presented with two of each structure type, both in English. Note that no student heard the same story twice. Our materials consisted of two examples of each structure with different characters and events. Following each story, the child orally recalled the story and then answered five questions on the story. Four why questions about each story asked the children to give reasons for the actions of the various characters. A fifth question asked "What lesson does the story teach?" Only the recall and why question data will be discussed today. We would like to emphasize that we allowed children to do the recall and question answering task in the language they preferred regardless of the language of the stories. We were interested in what they had understood and remembered and wanted a measure not confounded with production skills in the particular language.

The middle column of Table 2 shows the mean number of statements recalled for each of the various groups and language input conditions. This measure represents the amount of presented story statements reproduced in gist form or summarized across. Appropriate analyses of variance indicated no structure effects, no practice effects and no effects related to whether English or Spanish input occurred first in the experimental procedure. The final column shows mean percent correct on the four why questions. These means are aggregated across structure although the Analyses of Variance included structure as a factor. In presenting the results we want to address three issues. The first issue concerns the relationship between performance in two languages for those students who began reading in Spanish and transitioned to English reading at end of third beginning of fourth grade.

The recall data are shown in Figure 1, top left. The solid line represents Spanish language input, the dotted English. Significance tests on the differences between the means for Spanish versus English input at each grade level indicated that the differences are significant only for the Kindergarten children $F(1,12) = 9.53$, $p < .01$. Secondly, for input in both languages, there is a steady increase across grades until fourth grade. This trend is similar to previously reported developmental changes in monolingual English samples on story recall tasks.

The question data are shown in the lower left panel of Figure 1. Two points are of particular interest: First, level of performance on the questions is higher than on the recall data. Second, only in Kindergarten is performance better with Spanish than with English input. Thus, both the recall and why question data indicate that once parsing skills in English are acquired comprehension skills are similar in the two languages.

The second issue we want to address concerns individual variability within each grade and the relationship between a particular individual's performance on the two comprehension measures and with the two languages. Essentially, we wanted to know if the conclusion based on group mean data held over individuals within the groups. First, we have found consistency between the recall and question measures in each language at each grade level. Thus, it is not the case that children with little or no recall still answer the questions correctly. To illustrate these relationships, Figure 2 shows the correlation coefficients and scatter plots for Kindergarten, first and second grades for each language. Note that there is insufficient variability in the third and fourth grade question data for this analysis to be meaningful. (Most of these children answered 7 or 8 questions correctly.)

With respect to the relationship between an individual's performance in Spanish and English, we find correlational patterns that show the same phenomena as the group mean data. Level of recall and of question performance is consistent across the two languages. In general, those who do well in Spanish do well in English and vice versa. The scatterplots in Figure 3 illustrate the nature of these relationships for the recall data.

Both the group mean data and the individual differences analyses indicate that once children for whom Spanish is the first language have mastered basic auditory parsing skills for English, comprehension of stories in Spanish and English reflects largely equivalent utilization of relevant knowledge. While there are individual differences in mastering parsing skills, it appears to be the case that an individual's prior knowledge of story form and content is utilized to similar degrees with both Spanish and English language inputs.

We wish to consider a third issue at this point. Some have argued that dealing with two languages in elementary school leads to performance in both languages that is poorer than performance by monolingual students. Our recall and question data indicate that this is not the case. The right hand portion of Figure 1 shows the performance of the monolingual English students. The recall data shows an age trend similar to that of the Bilingual program groups. Comparison with the Bilingual recall data indicates that only in third grade is performance with English input significantly different. In the third grade, students not yet reading English do worse on English input than monolingual English students, $t = 2.42$, $df = 18$, $p < .05$. However, performance with Spanish input for the ESL students is equal to performance with English input for the monolingual English students (28.4 vs 31.06). The why question data for the monolingual English students showed higher performance than the recall data. In comparison with the Bilingual program groups, the only significant difference is in Kindergarten where performance with English input was better for the monolingual English than for the Spanish students, $t = 3.2$, $df = 19$, $p < .01$. However, first language performance was not significantly different, $t = 1.46$, $df = 19$. There was the same type of consistency within individuals in the recall and question data for the monolingual groups.

Our findings indicate that knowledge used to guide story comprehension in a first language is also used to guide story comprehension in the second language. This process is contingent upon mastery of basic auditory or orthographic coding skills in the second language. This conclusion reinforces the instructional practice of using the primary language as the language of instruction while English is introduced as a second language.

With respect to our two measures of comprehension, it is important to note that comprehension as assessed by the why questions shows an earlier mastery of English than the recall data. While this is not surprising, our efforts to assess proficiency need to bear this in mind. Finally, our results also indicate that narrative comprehension skills as assessed in this research are no different for students who have been learning one language versus two during elementary school.

References

Bravo-Villasante, C. Antologia de la literature infantil Espanola. Madrid: Altamira-Rotopress, S.A., 1973.

Caramazza, A., & Brones, I. Lexical access in bilinguals. Bulletin of Psychonomic Society, 1979, 13, 212-214.

Caramazza, A., & Brones, I. Semantic classification by bilinguals. Canadian Journal of Psychology, 1980, 34, 77-81.

Childcraft (Eds.). El mundo de los ninos. Mallorca: Salvat Editores, S.A., 1973.

Cohen, A. A sociolinguistic approach to bilingual education. Rowley, MA: Newburg, 1975.

Dornic, S. Information processing in bilinguals: Some selected issues. Psychological Research, 1979, 40, 329-348.

Kintsch, W. Models for free recall and recognition. In D. A. Norman (Ed.), Models of Human Memory. New York: Academic Press, 1970.

John, V. P., Horner, V. M., & Berney, T. D. Story retelling: A study of sequential speech in young children. In H. Levin & J. P. Williams (Eds.), Basic studies in reading. New York: Basic Books, 1970.

Lambert, W. E., & Macnamara, J. Some cognitive consequences of following a first-grade curriculum in a second language. Journal of Educational Psychology, 1969, 80, 86-89.

Lopez, M., & Young, R. K. The linguistic interdependence of bilinguals. Journal of Experimental Psychology, 1974, 102, 981-983.

McCormack, P. O. Bilingual linguistic memory: The independence-interdependence revisited. In P. A. Hornby (Ed.), Bilingualism. New York: Academic Press, 1977.

Macnamara, J. The bilingual's linguistic performance--a psychological overview. Journal of Social Issues, 1967, 23, 58-77.

Mandler, J. M., & Johnson, N. S. Remembrance of things parsed: Story structure and recall. Cognitive Psychology, 1977, 9, 111-151.

Poulson, D., Kintsch, E., Kintsch, W., & Premack, D. Children's comprehension and memory for stories. Journal of Experimental Child Psychology, 1979, 28, 379-403.

Stein, N. L., & Trabasso, T. What's in a story: An approach to comprehension and instruction. In R. Glaser (Ed.), Advances in the psychology of instruction, (Vol. 2). Norwood, NJ: Erlbaum Associates, 1982.

AERA, 1985
Montreal, Canada
Printed in U.S.

Handout: Use of Prior Knowledge in Understanding Fables in First and Second Languages

Susan R. Goldman and María Reyes

Table 1

Sample Fables

La Hormiga y la Paloma

Setting	1.	Una vez había una hormiga que iba caminando.
Beginning	2.	De pronto, se paró.
Events	3.	"Tengo sed," dijo la hormiga.
	4.	"¿Por qué no bebes un poco de agua del arroyo?"
Complex	5.	dijo una paloma que estaba en una rama de un árbol.
Reaction	6.	"El arroyo esta cerca.
	7.	"Pero cuidada no te caigas en el."
	8.	La hormiga fue al río
Development	9.	y comenzó a beber.
Outcome	10.	De repente, un viento aventó a la hormiga al agua.
Beginning	11..	"¡Ayudenme!" gritó la hormiga.
Event	12.	"¡Me ahogo!"
Complex	13.	La paloma oyó el grito
Reaction	14.	y fue pronto a salvar a la hormiga.
	15.	La paloma quebró una ramita del árbol con el pico.
Development	16.	Después, la paloma voló sobre el arroyo con la ramita
	17.	y la dijó caer junto a la hormiga.
	18.	La hormiga se subió a la ramita
Outcome	19.	y floto hasta la orilla.
Beginning	20.	Poco después, la hormiga vió a un cazador.
Event	21.	El cazador estaba preparando una trampa.
Complex	22.	El escondio la trampa
Reaction	23.	para coger a la paloma.
Development	24.	La paloma comenzó a volar hacia la trampa.
	25.	Así que la hormiga mordió el tobillo del cazador tan fuerte como pudo.
	26.	"¡Ay!" gritó el cazador.
Outcome	27.	La paloma oyó al cazador
	28.	y salió volanda.

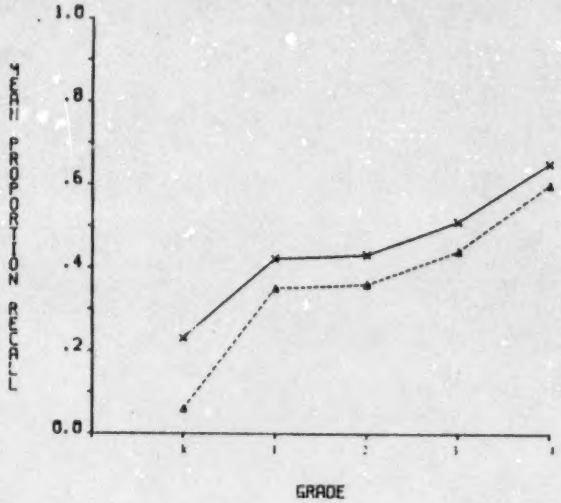
Story: "The Ant and the Dove"

Constituents		Proposition(s) in the text
Setting	1	Once there was an ant who was walking along.
Beginning Event	2	Suddenly, she stopped.
	3	"I'm thirsty," said the ant.
Complex Reaction	4	"Why don't you get a drink of water from the river?"
	5	said a dove who was sitting in a nearby tree.
	6	"The river is close by.
	7	Just be careful you don't fall in."
Development	8	The ant went quickly to the river
	9	and began to drink.
Outcome	10	Suddenly, the wind blew the ant into the water.
Beginning Event	11	"Help!" cried the ant.
	12	"I'm drowning."
Complex Reaction	13	The dove heard the cry
	14	and went quickly to save the ant.
Development	15	The dove broke a branch from the tree with her beak.
	16	Then, the dove flew over the river with the branch
	17	and dropped it to the ant.
Outcome	18	The ant climbed onto the branch
	19	and floated to shore.
Beginning Event	20	Not long after, the ant saw a hunter.
	21	The hunter was setting a trap.
Complex Reaction	22	He hid the trap
	23	so he could catch the dove.
Development	24	The dove was flying toward the trap.
	25	So, the ant bit the hunter's ankle as hard as she could.
Outcome	26	The hunter let out a loud scream, "Ouch!"
	27	The dove heard the hunter
	28	and flew away.

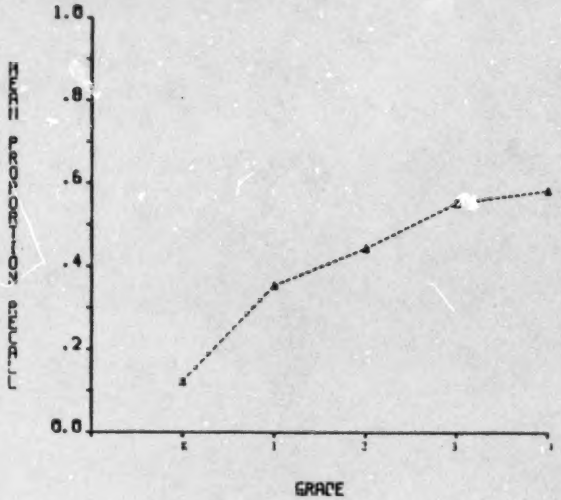
Table 2

Subject Groups, Recall and Question Data for Fables

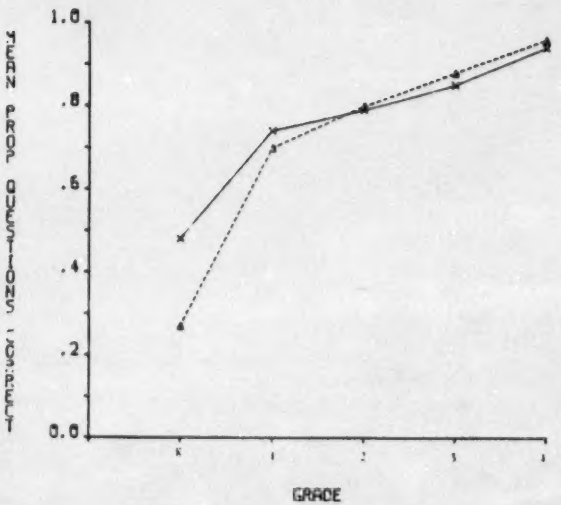
		Groups and Descriptions	Mean Recall (Max = 56)	Mean Correct Questions (Max = 8)
Kindergarten	21	13 ESL; Spanish first language	Spanish 12.69 English 3.54	Spanish 3.85 English 2.15
		8 Monolingual English	English 6.88	English 5.56
First Grade	32	16 ESL; Reading in Spanish	Spanish 23.75 English 19.44	Spanish 5.94 English 5.56
		16 Monolingual English	English 19.41	English 6.4
Second Grade	18	10 ESL; Reading in Spanish	Spanish 24.3 English 19.9	Spanish 6.3 English 6.4
		8 Monolingual English	English 24.63	English 6.88
Third Grade	20	10 ESL; Reading in Spanish Readiness for English rdg.	Spanish 28.4 English 24.6	Spanish 6.8 English 7.0
		10 Monolingual English	English 31.06	English 7.4
Fourth Grade	20	12 Began Reading in Spanish; Reading in English 1 yr.	Spanish 36.3 English 33.58	Spanish 7.5 English 7.67
		8 Monolingual English	English 32.63	English 7.63



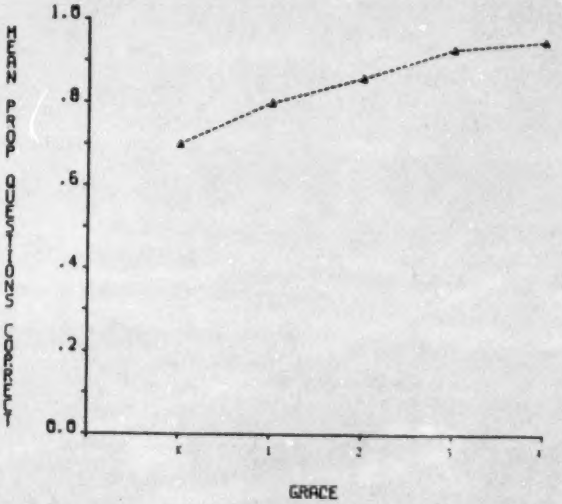
STUDENTS IN BILINGUAL PROGRAMS



MONOLINGUAL ENGLISH STUDENTS

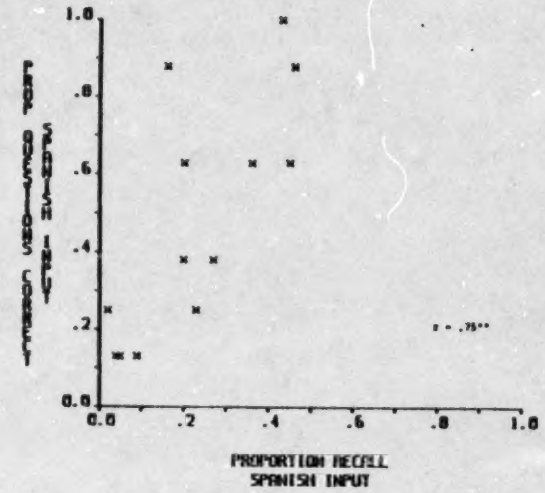


STUDENTS IN BILINGUAL PROGRAMS

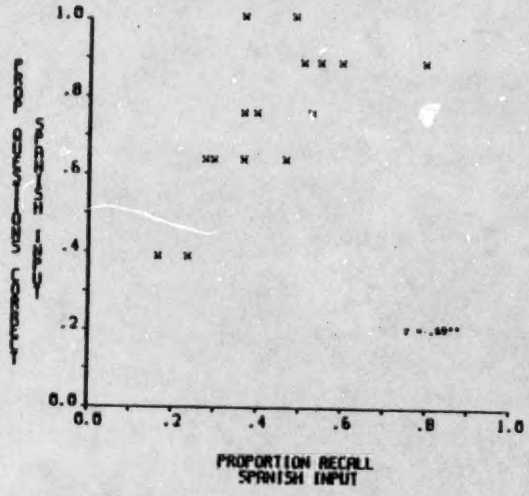


MONOLINGUAL ENGLISH STUDENTS

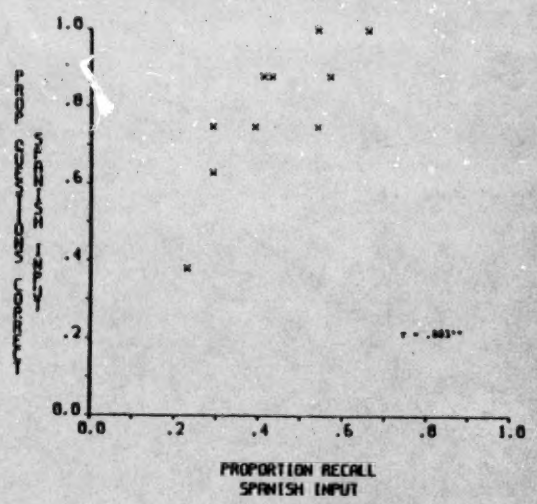
Figure 1 Recall and Question Data



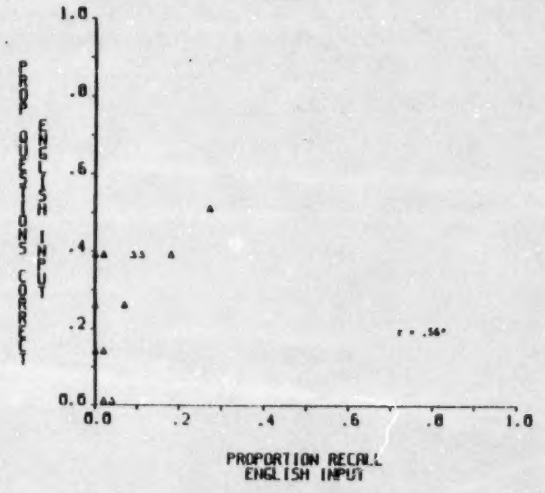
KINDERGARTEN SPANISH READERS



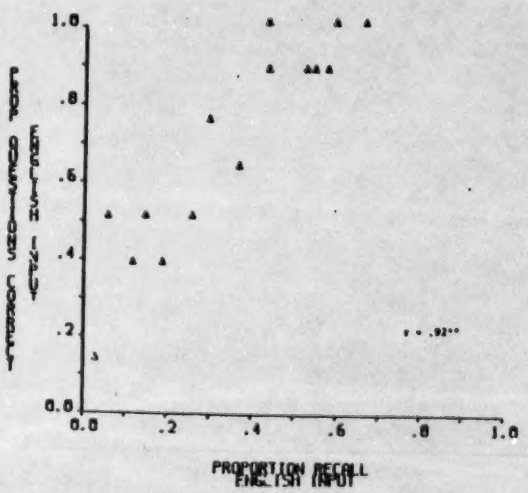
FIRST GRADE SPANISH READERS



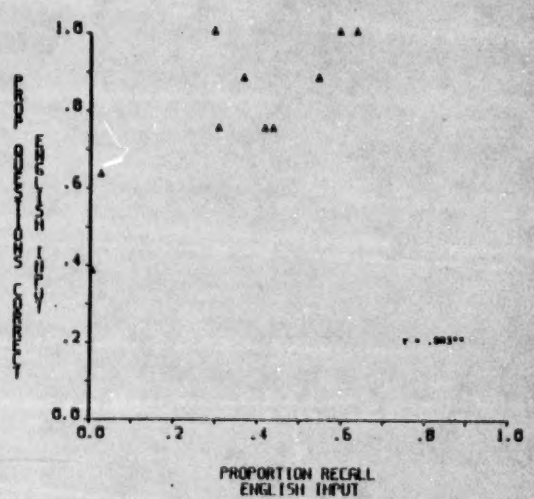
SECOND GRADE SPANISH READERS



KINDERGARTEN SPANISH READERS



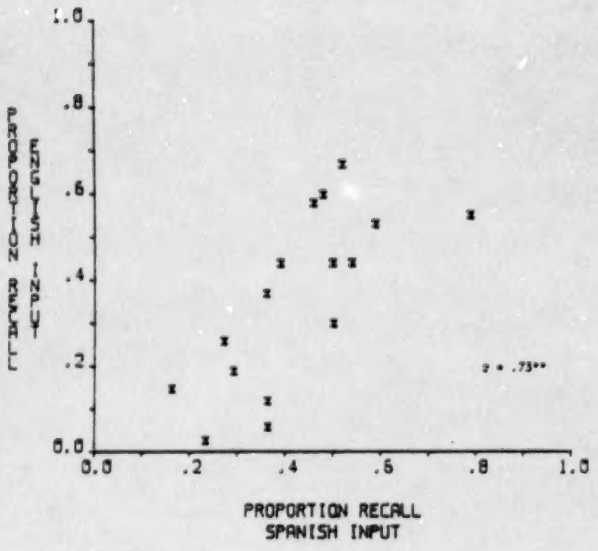
FIRST GRADE SPANISH READERS



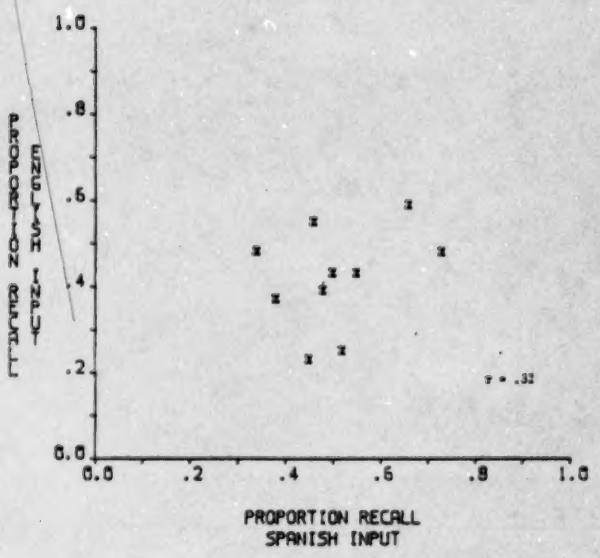
SECOND GRADE SPANISH READERS

Figure 2

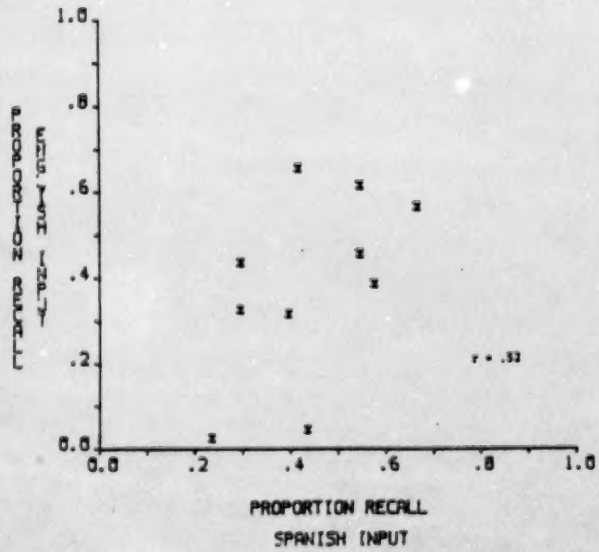
Relationships between Recall and Question Data for Each Input Language



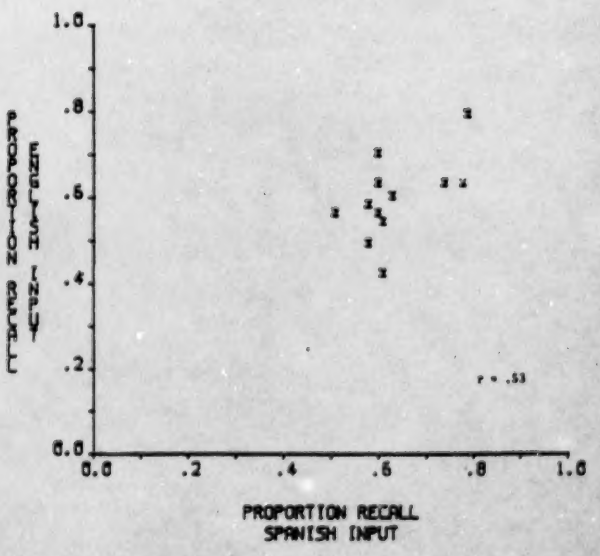
FIRST GRADE SPANISH READERS



THIRD GRADE SPANISH READERS



SECOND GRADE SPANISH READERS



FOURTH GRADE BILINGUAL READERS

Figure 3

Relationships between Recall for Spanish and English Input